

Chromium TMDLs Update



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Chromium TMDLs

- Inner Harbor/Northwest Branch and Bear Creek are listed as impaired for Chromium
- Listing is for Total Cr:
 - $\text{Total Cr} = \text{Cr}^6 + \text{Cr}^3$
 - Cr^6 – soluble and toxic
 - Cr^3 – non-soluble and non-toxic



Cr Assessment

- Members of SAG have suggested that MDE should ensure that the chromium found in the Harbor is in fact the toxic form (Cr^6)
- Current MDE data set does not distinguish between chromium in different valence states



Cr Assessment

- Environmental conditions exist indicating that Cr^3 may be the form of chromium found in Harbor
 - Low dissolved oxygen in water column
 - Sulfides in sediments
- Therefore, MDE is going to conduct additional field sampling in Bear Creek and Inner Harbor/Northwest Branch



Cr Assessment

- Goal: Determine what form of Cr is present in the sediments, pore water, and water column and determine the amount of sulfides in sediment
- Pore Water – the water found between the sediment grains in the top several centimeters of the bottom sediments



Revised Chromium Schedule

- Sampling - Mid August
- Data Report – October
- Final TMDL – After New Years